

## **FINAL DETERMINATION**

Kentucky Utilities Company has applied to the Kentucky Division for Air Quality for a Title V permit to operate its Ghent Station electric generating facility located on U.S. Highway 42, Ghent, Kentucky. The plant is a Title V source because potential emissions of criteria pollutants exceed the major source threshold.

A preliminary determination was made to approve the permit and a public notice was placed in The News - Democrat on, December 17, 1997. The comment period expired and comments were received from the source, and the Utility Information Exchange of Kentucky (UIEK). Responses to these comments and permit changes associated with these comments are listed in Attachment D. Additionally, minor revisions have been made to the language of Sections A, C, F, and G to reflect changes made to the division's Title V permit template for clarity purposes only.

Comments were also received from the U.S. EPA on proposed/final permits issued to other utilities being permitted by this agency. Some of the additional comments were determined to be applicable to all electric generating, utility Title V permits being issued by the division. The changes resulting from these comments include the following.

- 1) EPA has requested that all emission units utilizing filters for control of particulate matter to perform daily qualitative visual observations of the opacity of emissions and maintain a log of the observations. If visible emissions are perceived or believed to exceed the applicable standard, the permittee shall determine the opacity of emissions by Reference Method 9 and instigate an inspection of the control equipment making necessary repairs.
- 2) Regulation 61:015 has not been approved by U.S. EPA. This regulation was replaced by a revision on April 1, 1984 and the current language must remain in the permit as issued. EPA requested that additional language be added stating that the regulation was state-enforceable only. The following italicized language has been added to Section B of the permit where 61:015 is applicable.

*“Regulation 401 KAR 61:015, Existing indirect heat exchangers (State Effective Date: April 1, 1984) applicable to an emission unit with a capacity of more than 250 mm BTU per hour and commenced before August 17, 1971. This regulation is state-enforceable only until such time as the effective date of an EPA rulemaking, approving this regulation into the federally-approved Kentucky State Implementation Plan.”*

- 3) The following language has been added to Section G, Subsection (d)2 Acid Rain Program Requirements as suggested.

The source shall comply with all requirements and conditions of the Title IV, Acid Rain Permit (A-98-016, ATTACHMENT C) and the Phase II permit application (including the Phase II NO<sub>x</sub> compliance plan and averaging plan, if applicable) issued for this source. The source shall also comply with all requirements of any revised or future acid rain permit(s) issued to this source.

- 4) Section G, condition #21 states that "all previously issued construction and operating permits are hereby null and void." This sentence should be changed to more accurately reflect Kentucky ' s combined construction/operating permit program to read as follows:

"All previously issued construction and operating permit are hereby **subsumed** into this permit"

In conclusion, a thorough analysis has been made of all relevant information available which pertains to this application. The division has concluded that the source will comply with all applicable air quality regulations and requirements. Compliance with the terms of the permit will ensure compliance with all air quality requirements. Therefore, it is recommended that the permit be issued as conditioned.

**KENTUCKY DIVISION FOR AIR QUALITY'S RESPONSES TO COMMENTS  
RECEIVED FROM KENTUCKY UTILITIES COMPANY (KU) ON  
GHENT GENERATING STATION DRAFT TITLE V PERMIT**

**1. Comment (1):** Reference: Emissions Summary. KU could not reproduce the values for pollutant actual or potential emissions in tons per year and requests that we discuss the values with the Cabinet.

**Response to (1):** Since the emissions summary is not part of the permit but is an estimation, and is for informational purposes only, the Division believes no revision is necessary at this time. The Division did use standard Midwest Research Institute factors from the Division's Minerals Section to calculate coal handling emissions. This could be part of the discrepancy. Another note is that if an AP-42 factor yielded higher emissions, then generally the Division used the higher emission factor. For regulated criteria pollutants with emission standards, potential emissions are equated with the allowable emissions.

**2. Comment (2):** Reference: Permit Statement of Basis, Page 1, Source Description.

Some of the control equipment descriptions are inaccurate. This could be addressed as follows:

- E. Unit 05 - the barge unloader itself is not enclosed
- E. Unit 07 - surfactants are not used for fugitive emissions control

Some of the dates and descriptions associated with the coal conveying and handling operations are incorrect. These should be changed as follows:

E. Unit 09-01 - Coal conveying and handling operations includes conveyors 2J and 2H and transfer points, equipped with enclosure; construction commenced after October 24, 1974. Note: these belts were added for the operation of Ghent Unit 2 which became operational in 1977, but they were not changed in any way with the addition of the limestone handling system in 1992.

E. Unit 10-01 - Coal conveying and handling operations includes conveyor 6H and transfer points, equipped with enclosure; construction commenced after October 24, 1974. Note: This belt was added for the operation of Ghent Units 3 & 4 which became operational in 1981 and 1984 respectively, but they were not changed in any way with the addition of the limestone handling system in 1992.

E. Unit 11 - Conveyor 2J should be deleted from this emission unit as it was added for the operation of Ghent Unit 2, not Ghent Units 3 & 4. It is suggested that conveyor 2J be included in emissions unit 09-01. In addition, the remaining coal handling facilities in this emissions unit commenced construction before 1981 (rather than 1985), but still after the applicable date of October 24, 1974 in 40 CFR Part 60, Subpart Y.

## **2. Response to (2):**

E. Unit 05 - The Division has added a note to the permit and statement of basis that the barge unloader itself is not enclosed.

E. Unit 07 - The Division has removed “surfactants” from the statement of basis and from Subsection 7 of the permit.

Regarding the comment about E. Unit 09-01 - The Division has correctly shown conveyor 2H at this emissions point due to the dual purpose of coal handling (09-01) and limestone handling (09-02) but will change the description for coal handling at 09-01 to clarify that: construction of conveyor 2H commenced before 1977 (operational in 1977). Conveyor 2J, since only coal is handled, is shown under point 11 correctly, as having commenced after October 24, 1974, and as being subject to Subpart Y. For conveyor 2J at E. Unit 11, the Division will clarify in the description at E. Unit 11 that construction commenced before 1977 (operational in 1977).

Regarding the comment about E. Unit 10-01 - The Division has correctly shown conveyor 6H at this emissions point, as having commenced after October 24, 1974, and as being subject to Subpart Y, but will clarify in the description for 10-01, for coal handling, that: construction commenced before 1981 (operational in 1981). Conveyor 6H was changed to handle limestone in 1992 so it is correctly shown with the description at Emissions Unit 10-02 with regard to handling limestone.

Regarding the comment about E. Unit 11 - Conveyor 2 J is only used to handle coal. Conveyor 2H at E. Unit 09-01 is specifically identified as point 09-01 because the -01 indicates the handling of coal whereas identification of conveyor 2H at 09-02 indicates limestone handling. Conveyor 2J is not used to handle limestone and is therefore correctly shown at E. Unit 11. The Division will change the description at E. Unit 11 to read:

“Construction commenced before 1981 (operational in 1981),  
Except, conveyor 2J construction commenced before 1977 (operational in 1977).”

## **3. Comment (3):** Reference: Permit Statement of Basis, Page 4, “Comments”

Paragraph 1: The third and fourth bullets refer to the use of continuous opacity monitors (COMS) as indicators of particulate emissions for emissions units 01, 02, 03 and 04. Please refer to the General Comment Section for discussion of this issue.

Paragraph 2: The seventh bullet refers to monitoring certain coal and limestone handling facilities by conducting weekly inspections of control equipment. KU is requesting that this be changed to monitoring by performing weekly qualitative visual observations. This is specifically addressed below for each applicable emission unit.

## **3. Response to (3):**

See division’s responses to UIEK’s comments.

## **On Emission Unit 01 (Boiler 1)**

**4. Comment (4):** Reference: Page 4, Emission Limitations. Delete the language in item (a) which references assuring continuous compliance with the particulate standard using opacity. Please refer to the General Comments Section for discussion of this issue.

### **4. Response to (4):**

See division's responses to UIEK's comments.

**5. Comment (5):** Reference: Page 5, Testing Requirements. Delete items (a) and (b). Please refer to the General Comments Section for discussion of this issue.

### **5. Response to (5):**

See division's responses to UIEK's comments.

**6. Comment (6):** Reference: Page 5, Specific Monitoring Requirements. Item (e), 3rd line. Delete the words "for the continuous opacity monitoring system," since 401 KAR 61:005. Section 3(5) provides this exemption for all monitoring systems.

### **6. Response to (6):**

See division's responses to UIEK's comments.

**7. Comment (7):** Reference: Page 6. Specific Recordkeeping Requirements. Delete item (c). Please refer to the General Comments Section for discussion of this issue.

### **7. Response to (7):**

See division's responses to UIEK's comments.

**8. Comment (8):** Reference: Page 7, Specific Reporting Requirements. Delete item (b). Please refer to the General Comments Section for discussion of this issue.

### **8. Response to (8):**

See division's responses to UIEK's comments.

## **On Emission Unit 02 (Boiler 02)**

**9. Comment (9):** Reference: Page 8, Emission Limitations. Delete the language in item (a) which references assuring continuous compliance with the particulate standard using opacity. Please refer to the General Comments Section for discussion of this issue.

**9. Response to (9):**

See division's responses to UIEK's comments.

**10. Comment (10):** Reference: Page 9, Testing Requirements. Delete items (a) and (b). Please refer to the General Comments Section for discussion of this issue.

**10. Response to (10):**

See division's responses to UIEK's comments.

**11. Comment (11):** Reference: Page 9, Specific Monitoring Requirements. Delete the word "emissions" after the phrase "...either oxygen or carbon dioxide" in the fourth line of item (a).

**11. Response to (11):** The Division acknowledges the comment and will change "emissions" to "content of effluent gases" consistent with 401 KAR 59:005, Section 4.

**12. Comment (12):** Reference: Page 10, Specific Recordkeeping Requirements. Delete item (d). Please refer to the General Comments Section for discussion of this issue.

**12. Response to (12):**

See division's responses to UIEK's comments.

**13. Comment (13):** Reference: Page 11, Specific Reporting Requirements. Delete item (c). Please refer to the General Comments Section for discussion of this issue.

**13. Response to (13):**

See division's responses to UIEK's comments.

**On Emission Unit 03 (Boiler 03)**

**14. Comment (14):** Reference: Page 13, Emission Limitations. Delete the language in item (a) which references assuring continuous compliance with the particulate standard using opacity. Please refer to the General Comments Section for discussion of this issue.

**14. Response to (14):**

See division's responses to UIEK's comments.

**15. Comment (15):** Reference: Page 14, Testing Requirements. Delete items (a) and (b). Please refer to the General Comments Section for discussion of this issue.

**15. Response to (15):**

See division's responses to UIEK's comments.

**16. Comment (16):** Reference: Page 14, Specific Monitoring Requirements. Delete the word "emissions" after the phrase "...either oxygen or carbon dioxide" in the fourth line of item (a).

**16. Response to (16):** The Division acknowledges the comment and will change "emissions" to "content of effluent gases" consistent with 401 KAR 59:005, Section 4.

**17. Comment (17):** Reference: Page 15, Specific Recordkeeping Requirements. Delete item (d). Please refer to the General Comments Section for discussion of this issue.

**17. Response to (17):**

See division's responses to UIEK's comments.

**18. Comment (18):** Reference: Page 17, Specific Reporting Requirements. Delete item (c). Please refer to the General Comments Section for discussion of this issue.

**18. Response to (18):**

See division's responses to UIEK's comments.

**On Emissions Unit 04 (Boiler 04)**

**19. Comment (19):** Reference: Page 18, Emission Limitations. Delete the language in item (a) which references assuring continuous compliance with the particulate standard using opacity. Please refer to the General Comments Section for discussion of this issue.

**19. Response to (19):**

See division's responses to UIEK's comments.

**20. Comment (20):** Reference: Page 19, Testing Requirements. Delete items (a) and (b). Please refer to the General Comments Section for discussion of this issue.

**20. Response to (20):**

See division's responses to UIEK's comments.

**21. Comment (21):** Reference: Page 19, Specific Monitoring Requirements. Delete the word "emissions" after the phrase "...either oxygen or carbon dioxide" in the fourth line of item (a).

**21. Response to (21):** The Division acknowledges the comment and will change “emissions” to “content of effluent gases” consistent with 401 KAR 59:005, Section 4.

**22. Comment (22):** Reference: Page 20, Specific Recordkeeping Requirements. Delete item (d). Please refer to the General Comments Section for discussion of this issue.

**22. Response to (22):**

See division’s responses to UIEK’s comments.

**23. Comment (23):** Reference: Page 22, Specific Reporting Requirements. Delete item (c). Please refer to the General Comments Section for discussion of this issue.

**23. Response to (23):**

See division’s responses to UIEK’s comments.

#### **On Emissions Unit 06 (Coal Crushing)**

**24. Comment (24):** Reference: Page 27, Description. The Crusher House #1 equipment includes one crusher with two (not three) surge bins.

**24. Response to (24):** The Division will change “three surge bins” to “two surge bins”.

**25. Comment (25):** Reference: Page 27, Specific Monitoring Requirements. Delete item (b). KU has no monitoring devices on the coal crushing operations which allows for the direct measurement of operating rate and hours of operation. KU only has the capability to calculate the daily coal processed through the coal crusher based on tons of coal burned on a boiler-by-boiler basis. See comments under Specific Recordkeeping Requirements.

**25. Response to (25):** The Division agrees to delete the item (b) referred to.

**26. Comment (26):** Reference: Page 29, Specific Recordkeeping Requirements. Delete the phrase “...and hours of operation...” as the specific hours that the crusher is operated are not recorded and this information is not needed to determine emissions. Change the recordkeeping requirement to: “Records of the coal processed (based on tonnage records of coal burned on a daily basis) shall be maintained.”

**26. Response to (26):** The correct page number appears to be #28. It is untrue that specific hours the crusher is operated are not needed. To determine the allowable emission rate pursuant to Subsection 2. Emission Limitations: a), the operating rate in tons per hour is required for input into the equation to determine the allowable. Therefore, the Division has reworded the Specific Recordkeeping Requirement as follows: “Records of the coal processed (based on tonnage records of coal burned on a daily basis) and hours of operation shall be maintained for five (5) years.”



**On Emissions Unit 07 (Coal Handling):**

**27. Comment (27):** Reference: Page 30, Specific Recordkeeping Requirements. Change the recordkeeping requirement to: “Records of the coal processed (based on tonnage records of coal burned on a daily basis) shall be maintained.”

**27. Response to (27):** The Division agrees to make the change.

**On Emissions Unit 08-01 (Coal Handling):**

**28. Comment (28):** Reference: Page 32, Specific Recordkeeping Requirements. Change the recordkeeping requirement to: “Records of the coal processed (based on tonnage records of coal burned on a daily basis) shall be maintained.”

**28. Response to (28):** The Division agrees to make the change.

**On Emissions Unit 09-01 (Coal Handling):**

**29. Comment (29):** Reference: Page 35, Description. Add conveyor 2J and transfer points as discussed in the comments on the Permit Statement of Basis.

**29. Response to (29):** Regarding the comment about E. Unit 11 - Conveyor 2 J is only used to handle coal. Conveyor 2H at E. Unit 09-01 is specifically identified as point 09-01 because the -01 indicates the handling of coal whereas identification of conveyor 2H at 09-02 indicates limestone handling. Conveyor 2J is not used to handle limestone and is therefore correctly shown at E. Unit 11. For conveyor 2J at E. Unit 11, the Division will clarify in the description at E. Unit 11 that construction commenced before 1977 (operational in 1977).

**30. Comment (30):** Reference: Page 35, Specific Monitoring Requirements. There is no applicable requirement under 40 CFR Part 60, Subpart Y for KU to “inspect the control equipment weekly and make necessary repairs to assure compliance.” KU proposes that the following language be substituted: “The permittee shall perform a qualitative visual observation of the opacity of emissions from each stack on a weekly basis and maintain a log of the observations. If visible emissions from any stack are perceived or believed to exceed the applicable standard, the permittee shall determine the opacity of emissions by Reference Method 9 and instigate an inspection of the control equipment for necessary repairs.”

**30. Response to (30):** Since the control equipment includes enclosures which do not have stacks, the Division agrees to the following language for substitution: “The permittee shall perform a qualitative visual observation of the opacity of emissions from control equipment on a weekly basis and maintain a log of the observations. If visible emissions are perceived or believed to exceed the applicable standard, the permittee shall determine the opacity of emissions by Reference Method 9 and instigate an inspection of the control equipment making necessary repairs.”

**31. Comment (31):** Reference: Page 35, Specific Recordkeeping Requirements. Change the recordkeeping requirement to: “Records of the coal processed (based on tonnage records of coal burned on a daily basis) shall be maintained.”

**31. Response to (31):** The Division agrees to make the change.

**On Emissions Unit 10-01 (Coal Handling):**

**32. Comment (32):** Reference Page 39, Specific Monitoring Requirements. There is no applicable requirement under 40 CFR Part 60, Subpart Y for KU to “inspect the control equipment weekly and make necessary repairs to assure compliance.” KU proposes that the following language be substituted: “The permittee shall perform a qualitative visual observation of the opacity of emissions from each stack on a weekly basis and maintain a log of the observations. If visible emissions from any stack are perceived or believed to exceed the applicable standard, the permittee shall determine the opacity of emissions by Reference Method 9 and instigate an inspection of the control equipment for necessary repairs.”

**32. Response to Comment (32):** Since the control equipment includes enclosures which do not have stacks, the Division agrees to the following language for substitution: “The permittee shall perform a qualitative visual observation of the opacity of emissions from control equipment on a weekly basis and maintain a log of the observations. If visible emissions are perceived or believed to exceed the applicable standard, the permittee shall determine the opacity of emissions by Reference Method 9 and instigate an inspection of the control equipment making necessary repairs.”

**33. Comment (33):** Reference: Page 39, Specific Recordkeeping Requirements. Change the recordkeeping requirement to: “Records of the coal processed (based on tonnage records of coal burned on a daily basis) shall be maintained.”

**33. Response to (33):** The Division agrees to make the change.

**On Emissions Unit 11 (Coal Handling)**

**34. Comment (34):** Reference: Page 43, Description. Paragraph 1: The Crusher House #2 equipment includes one crusher with two surge bins (there used to be only one surge bin, but a divider has been installed, creating two surge bins).

Paragraph 2: Delete conveyor 2J and transfer points as discussed in the comments on the Permit Statement of Basis.

**34. Response to (34):** Re: Paragraph 1: The Division will change the description to “Crusher House #2 (one crusher with two surge bins)”.

Re: Paragraph 2: The Division does not agree to delete conveyor 2J and transfer points but will make appropriate clarifications. Please see responses numbered 2 and 29.

**35. Comment (35):** Reference: Page 43, Specific Monitoring Requirements. There is no applicable requirement under 40 CFR 60 Subpart Y for KU to “inspect the control equipment weekly and make necessary repairs to assure compliance.” KU proposes that the following language be substituted: “The permittee shall perform a qualitative visual observation of the opacity of emissions from each stack on a weekly basis and maintain a log of the observations. If visible emissions from any stack are perceived or believed to exceed the applicable standard, the permittee shall determine the opacity of emissions by Reference Method 9 and instigate an inspection of the control equipment for necessary repairs.”

**35. Response to (35):** Since the control equipment includes enclosures and a baghouse, the Division has used the following language at KU’s and U.S. EPA’s request: “The permittee shall perform a qualitative visual observation of the opacity of emissions from control equipment on a daily basis and maintain a log of the observations. If visible emissions are perceived or believed to exceed the applicable standard, the permittee shall determine the opacity of emissions by Reference Method 9 and instigate an inspection of the control equipment making necessary repairs.”

**36. Comment (36):** Reference: Page 44, Specific Recordkeeping Requirements. Change the recordkeeping requirement to: “Records of the coal processed (based on tonnage records of coal burned on a daily basis) shall be maintained.”

**36. Response to (36):** The Division agrees to make the change.

#### **On Emissions Unit 16 (Limestone Secondary Crushing)**

**37. Comment (37):** Reference: Page 53, Specific Monitoring Requirements. There is no applicable requirement under 40 CFR 60, Subpart 000 for KU to “inspect the control equipment weekly and make necessary repairs to assure compliance.” KU proposes that the following language be substituted: “The permittee shall perform a qualitative visual observation of the opacity of emissions from each stack on a weekly basis and maintain a log of the observations. If visible emissions from any stack are perceived or believed to exceed the applicable standard, the permittee shall determine the opacity of emissions by Reference Method 9 and instigate an inspection of the control equipment for necessary repairs.”

**37. Response to (37):** Since the control equipment includes enclosures which do not have stacks, the Division agrees to the following language for substitution: “The permittee shall perform a qualitative visual observation of the opacity of emissions from control equipment on a weekly basis and maintain a log of the observations. If visible emissions are perceived or believed to exceed the applicable standard, the permittee shall determine the opacity of emissions by Reference Method 9 and instigate an inspection of the control equipment making necessary repairs.”

**38. Comment (38):** Reference: Page 53, Specific Recordkeeping Requirements.

**38. Response to (38):** There is not a comment to respond to since all that is stated is: “Reference: Page 53, Specific Recordkeeping Requirements”.

## **On Emission Unit 20 (Dry Fly Ash Handling)**

**39. Comment (39):** Reference: Page 57, Specific Monitoring Requirements. Item (a) requires a qualitative visual observation on a weekly basis and maintenance of a log of the observations. Since this process is used very infrequently, KU requests that this language be changed to read: “The permittee shall perform a qualitative visual observation of the opacity of emissions from each stack on a weekly basis, when the unit is operating, and maintain a log of the observations.” This will greatly decrease unnecessary recordkeeping of noting that the emissions unit is not operating.

**39. Response to (39):** The Division agrees to make the requested change to the first sentence of Item (a) with the exception of adding daily instead of weekly as per EPA request for units with baghouse controls.

## **On Emission Unit 22 (Cooling Towers)**

**40. Comment (40):** Reference: Pages 59 & 60. KU requests that this emissions unit be removed from the permit and “Cooling Towers” be placed on the “Insignificant Activities” list. These towers are totally wet, 100 percent of the time that they are operating. Thus, it is unreasonable (and not applicable) to regulate these water pollution control devices as sources of fugitive emissions and create a duty to take “reasonable precautions to prevent particulate matter from becoming airborne” when the towers already have this precaution built in by the very nature of their design and purpose.

**40. Response to Comment (40):** According to Ghent cooling tower calculations submitted by KU, Units 1 and 2 cooling towers do meet the insignificant activity criteria with potential emissions less than five tons per year particulates each. However, the potential emissions are shown by KU as 8.58 tons per year and 8.27 tons per year for Units 3 and 4 cooling towers, respectively. Therefore, the Division will move 1 and 2 towers to the insignificant activities list but must leave towers 3 and 4 at the present location as emissions unit 22 because these are currently not demonstrated as meeting the insignificant activity criteria.

## **On Insignificant Activities**

**41. Comment 41:** Reference: Page 61, Insignificant Activities. Paragraph 1: Item (1) provides a list of specific oil tanks containing number two fuel oil (i.e., tanks that are currently on site). KU requests that this read only “various number two fuel oil tanks” to eliminate the need for a permit revision, even if only an administrative amendment, if the specific tanks are changed or if additional tanks meeting the definition of insignificant are brought on site.

Paragraph 2: Add item (9) Cooling towers.

**41. Response to (41):** Re: Paragraph 1: The Division does not agree. If specific tanks are changed or if additional tanks are brought on site it is possible that regulations which are not generally applicable could apply, or other criteria could result in the requirements for insignificant activities to not be met, or requirements which are not shown on the permit due to the generalization of just “various number two fuel oil tanks”, although generally applicable, may become applicable.

Re: Paragraph 2: The Division will add two of the cooling towers to the insignificant activities list. See response number 40.

**42. Comment (42):** KU requests that the following language be added as an additional item under insignificant activities to read: “All other activities individually resulting in emission less than 10 lb/day or 2 tons/year of a regulated air pollutant not specifically listed above.” The rationale is the same as for comment (41) above.

**42. Response to (42):** The Division acknowledges that addition of this term could reduce some notifications and permit changes; however, the criteria threshold for which a hazardous air pollutant must not exceed to meet the insignificant activity criteria based on 401 KAR 50:035, Section 5(4)(d) is 0.5 ton per year. Kentucky Utilities Company’s proposal of 10 pounds per day and two tons per year exceed the cutoff for a hazardous air pollutant emission. Additionally, the condition does not ensure that best available control technology requirements per 401 KAR 63:022 will be met for a new activity, or that applicable requirements, standards, and regulations will be followed. Therefore, this generalization of activities does not comply with 401 KAR 50:035, Section 5. Thus, the Division does not concur with addition of this term.

#### **Comments on Section F, Monitoring, Record Keeping, etc.**

**43. Comment (43):** Reference: Page 65, item 6. A requirement to contact the Regional Office promptly if a deviation from a permit requirement occurs is reasonable; however, defining this as within three hours of the occurrence may not be practical or possible in some cases (e.g.; the occurrence may not be discovered within this time period and Division for Air Quality personnel may not be available). We request that the language be changed to define promptly as: “within 3 normal working hours of discovery of the deviation, where normal working hours are defined as between 8:00 am and 4:30 pm Monday through Friday, excluding holidays.”

**43. Response to (43):** The Division has revised the cited condition which now reads:

6. a) In accordance with the provisions of Regulation 401 KAR 50:055, Section 1, the owner or operator shall notify the Division for Air Quality’s Florence Regional Office concerning startups, shutdowns, or malfunctions as follows:
  - i) When emissions during any planned shutdowns and ensuing startups will exceed the standards, notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
  - ii) When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards, notification shall be made as promptly as possible by telephone (or other electronic media) and shall cause written notice upon request.

b) In accordance with the provisions of Regulation 401 KAR 50:035, Section 7(1)(e)2, the owner or operator shall promptly report deviations from permit requirements including those attributed to upset conditions to the Division for Air Quality's Florence Regional Office. Prompt reporting shall be defined as quarterly for any deviation related to emission standards (other than emission exceedances covered by condition 6(a) above) and semi-annually for all other deviations from the permit requirements if not otherwise specified in the permit.

## **RESPONSE TO GENERAL COMMENTS RECEIVED FROM KENTUCKY UTILITIES - GHENT GENERATING STATION**

**44. General Comment (1):** Issue of assuring compliance with the particulate emission standard by using opacity data as a indicator:

Under 401 KAR 50:035, Section 7(1)(c), the Cabinet has the authority to require only those emission monitoring and analysis procedures or test methods required in the applicable regulations for the emissions unit. While 401 KAR 61:005, Section 3(6)(a) specifically requires indirect heat exchangers to continuously monitor opacity and sulfur dioxide, it does not require this for particulate emissions. In addition, there is no requirement in 401 KAR 61:015. (Indirect Heat Exchangers) for the continuous emission monitoring of particulates.

The existing regulations do provide for periodic monitoring of particulate emissions, using applicable EPA Reference Method stack tests, as the method by which to demonstrate compliance. To require continuous monitoring of either particulates or a surrogate for particulates (such as opacity or ESP control parameters), establishes a new requirement. Using a Title V permit to impose new requirements on an existing source is contrary to USEPA's White Paper, dated July 10, 1995. For new requirements to be imposed on any source category or emissions units, both USEPA and the Cabinet must conduct proper rulemaking process, with the opportunity for public notice and comment.

The establishment of continuous monitoring methods for applicable emission units is premature especially in light of the future requirements under the Compliance Assurance Monitoring (CAM) rule. As stated on page 3 of the Permit Statement of Basis, this rule does not apply until such time as the permittee applies for a significant revision to this Title V permit or upon Title V permit renewal. Under the CAM rule, it is the permittee's obligation to develop a Compliance Assurance Monitoring Plan for applicable emissions units and to submit it to the permitting authority for review and approval. KU is aware of this obligation and will develop and submit a CAM Plan at the appropriate time for applicable emission units at the Ghent Generating Station. KU has an understanding of how optical density relates to opacity (the principle by which we currently measure opacity), but KU asserts that what is needed is to determine how optical density relates to mass particulate emissions.

KU is not aware of a readily quantifiable/direct relationship between opacity and mass particulate emissions. Because of this, we feel that more information and testing needs to be gathered to make an informed decision on whether opacity indicator ranges are even appropriate for our emissions units. It may be that some other method, or combination of methods, such as indicator ranges on the operating parameters for our control devices, are more appropriate methods for indicating continuous compliance with particulate emissions. The permittee should have the flexibility to choose the method by which it will assure compliance with the particulate emissions standard on an emissions unit by emissions unit basis.

Thus, in lieu of the Cabinet's language on assuring continuous compliance with the particulate emission standards, KU proposes to:

- (a) (1) Within the first 12 months, conduct a performance test for particulate emissions to demonstrate compliance with the allowable standard.

NOTE: This amount of time will be needed to engage the services of a qualified stack testing firm or modify our in-house capabilities to conduct performance tests for particulates and the conduct stack tests on all of the applicable emission units in our system.

- (2) Conduct an additional performance test for particulate emissions during the third year of the permit term.

- (3) Maintain records on control parameters (i.e., current and voltage readings) for the electrostatic precipitators during the permit term.

- (b) Within the following 48 months, establish a continuous monitoring method using either Opacity Indicator Ranges (from COMS), Parametric Monitoring Indicator Ranges (from control device operations), or other method or combination thereof to be used as an indicator of particulate emissions from applicable emissions units.

NOTE: This amount of time will be needed to work with the Cabinet to resolve issues regarding: minimum data requirements, relationships between the indicator ranges and particulate emissions, averaging times, establishment of opacity indicators for particulate emissions greater than the opacity limitations themselves, opacity limitation variance procedures during stack testing, recordkeeping and reporting requirements, etc.

**44. Response to General Comment (1):**

Please see responses to UIEK's comments.

**45. Comment (2):** KU requests that the following language be added as an additional item under General Conditions: "In accordance with Region IV's Continuous Emission Monitoring (CEM) Enforcement Plan (CEP), the permittee shall be deemed in compliance if less than two percent of the non-exempt opacity or emission values during any calendar quarter are in excess of the permit limit."

**45. Response to General Comment (2):**

Please see responses to UIEK's comments.